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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/750,696	01/02/2004	Wu-Der Yang	B-5071DIV 621550-6	4107
36716	7590	12/15/2005	EXAMINER	
LADAS & PARRY 5670 WILSHIRE BOULEVARD, SUITE 2100 LOS ANGELES, CA 90036-5679			HU, SHOUXIANG	
			ART UNIT	PAPER NUMBER
			2811	

DATE MAILED: 12/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/750,696

Applicant(s)

YANG, WU-DER

Examiner

Shouxiang Hu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 January 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 25-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 25-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☒ Certified copies of the priority documents have been received in Application No. 10/426,216.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Claim Objections*

Claims 25-28 are objected to because of the following informalities and/or defect:

Claims 25-28 are each directed to a method of making a fuse structure, but are incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: the making of the fuse layer and its relationship with the recited conductive layers.

Furthermore, claims 25 and 26 each recites the subject matters of "forming a first opening" or "forming an opening" "on the first dielectric layer", resulting in "exposing" multiple conductive layers, but fail to clarify the subject matters of the instant invention that:

- (A) The opening is formed in (instead of on) the first dielectric layer.
- (B) One opening can only expose a single conductive layer.
- (C) Each opening is formed by starting from the second dielectric layer, instead of forming one opening above another previously formed underlying opening.
- (D) Each plug is formed by starting from the second dielectric layer, instead of forming one plug above another previously formed plug.

Claims 25-28 each need to further clarify which plug is formed in which opening.

In claim 25, all the terms of "structure" related to the step of "providing a structure" should read as: --substrate--.

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 25-28, as being best understood in view of the claim objections above, are rejected under 35 U.S.C. 102(e) as being anticipated by Bae (US 6,573,125).

Bae discloses a process method for a fuse structure (Figs. 1-16, especially Fig. 16), comprising the steps of: providing a substrate (200); forming one the substrate (200) the conductive layers (such as various regions of 204) which are readable as the first and/or second conductive layers recited in claims 25 and 27, and also readable as the first, second, third and/or fourth conductive layers recited in claims 26 and 28; forming a first dielectric layer (215 and 218); forming on the first dielectric layer the various conductive layers (222, see Fig. 9) which are readable as the third and/or fourth conductive layers recited in claims 25 and 27, and also readable as the fifth, sixth, seventh and/or eighth conductive layers recited in claims 26 and 28; forming a second dielectric layer (230 and 244b; see Fig. 12); forming various openings in the second dielectric layer with some of them extending through the first dielectric layer as well; forming plugs inside each of the openings; and forming on the second dielectric layer the various conductive layers (248, see Fig. 13) which are readable as the fifth, sixth,

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seventh, eighth, ninth and/or tenth conductive layer recited in claims 25 and 27, and also readable as the ninth, tenth, eleventh, twelfth, thirteenth, fourteenth, fifteenth, sixteenth, seventeenth and/or eighteenth conductive layers recited in claims 26 and 28, wherein the method of Bae is for making fuse structures for a DRAM device that naturally includes a substantially large number of basic fuse-related structures as the one shown in Fig. 16; thus the method of Bae naturally makes sufficient number of the conductive layers on each of the levels of the substrate, the first dielectric layer and the second dielectric layer, and makes each of the openings and plugs recited in claims 25-28. In other word, the method of Bae naturally makes and results in each and every elements recited in claims 25 -28, including: the conductive layers on each of the levels, the corresponding openings and plugs that respectively connect the conductive layers formed on the second dielectric layer with the corresponding conductive layers formed on the first dielectric layer, and the corresponding openings and plugs that respectively connect the conductive layers formed on the second dielectric layer with the corresponding conductive layers on the substrate.

### ***Response to Arguments***

Applicant's arguments with respect to claims 25 and 26 have been considered but are moot in view of the new ground(s) of rejection.

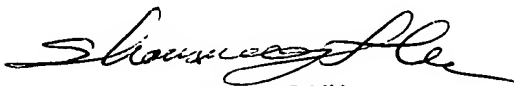
**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shouxiang Hu whose telephone number is 571-272-1654. The examiner can normally be reached on Monday through Thursday, 7:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie C. Lee can be reached on 571-272-1732. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SH  
December 10, 2005



SHOUXIANG HU  
PRIMARY EXAMINER